# Road to TRMM and Beyond

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Agenda
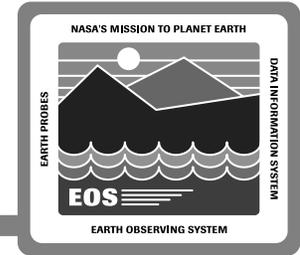
- **Comfort factors on the road to TRMM**

- **Expanded plan for TRMM Release detailed design**

- **COTS considerations for detailed design**

- **AM-1/L-7 planning status**

- **Conclusion**

# Comfort Factors on the
Road to TRMM
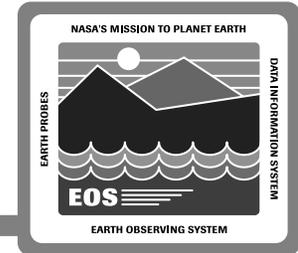
- **Release IR-/A design and approach validated via segment PDRs**
  - PDR-level design consistent with, and refined from, the SDR design
  - solid PDR design, without show stoppers
  - coordinated segment/system I&T plans
- **Effort/schedule plans validated against LOC and COTS procurement cycle**
- **Macro-level Release IR-1/A plans captured in ~650-node Intermediate Logic Network**
- **Schedule-risk mitigation well under way:**
  - successful development/deployment of Evaluation Package 4
  - ECS LOC reduction since SDR of 41% in IR-1 and 4% in A
- **V0 Client adopted as ECS front end for TRMM Release, providing proven software for V0 interoperability**
- **Next steps being refined:**
  - currently preparing detailed road-to-CDR plan reflecting PDR feedback and the segment-board-approved designs
  - refining estimation models to more precisely reflect COTS intensiveness of the PDR design

Detailed Design Development
Macro CDR Schedule
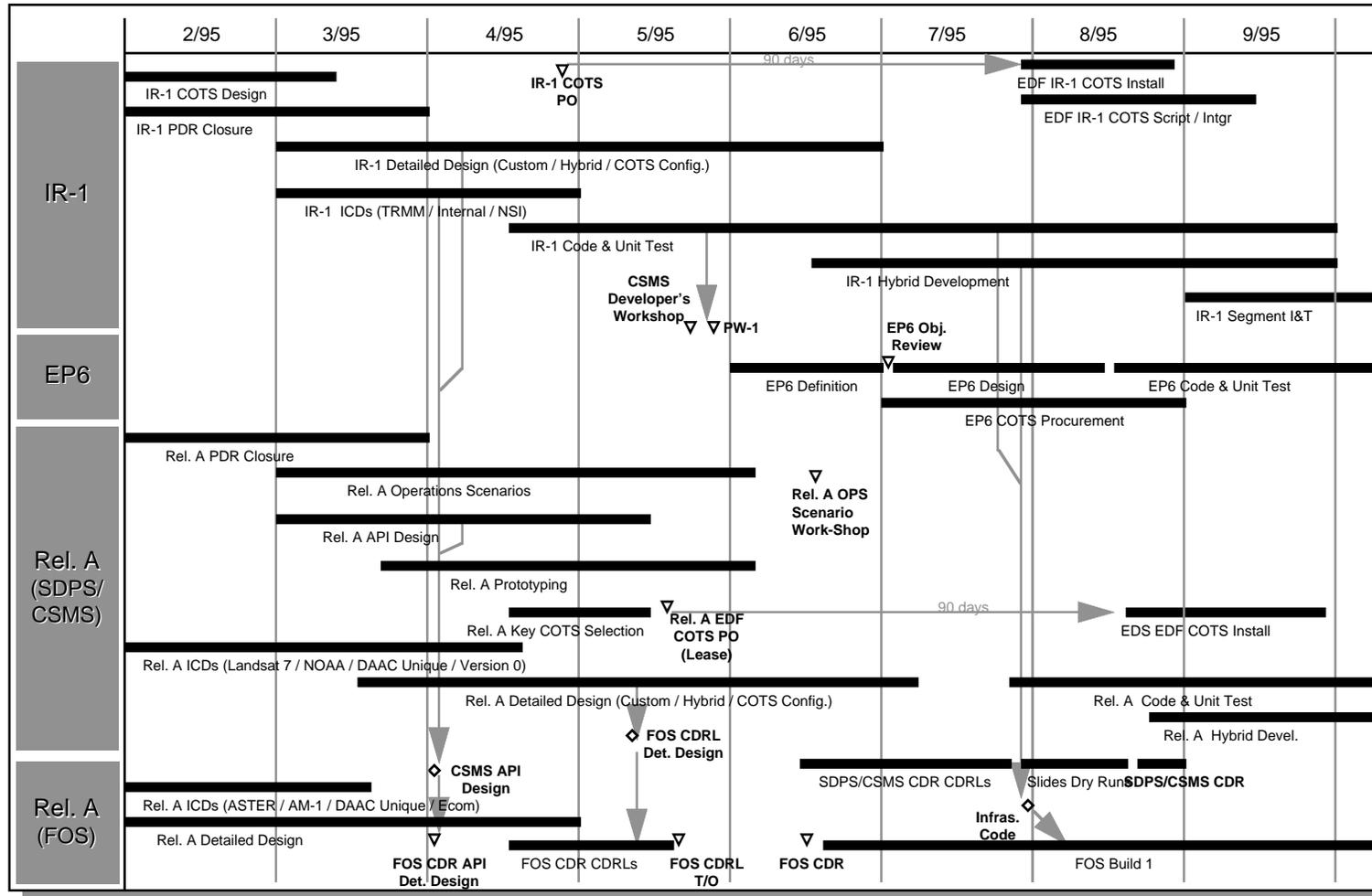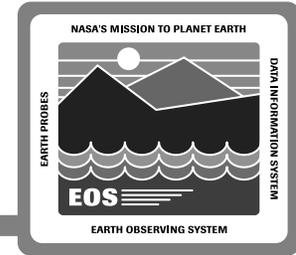
COTS Role in Detailed Design
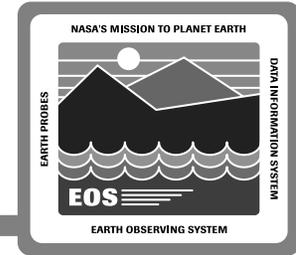
Custom Software

C/C++ modules (typically 250-line or less sizing estimates) described as follows:

- OO software detailed design models (attributes and operations mapped to all classes, associations detailed and reflected in module execution tasks, dynamic model control scheme reflected in module implementation)
- PDL description of custom modules
- API & IPC module calling sequences/semantic constructs (in internal ICD)

COTS Software

Selections, trades/rationale, interface and configuration data for COTS software:

- management and administration applications, configuration tools, scheduler, various utilities, software and script development tools, DBMS, libraries, agents and MIBs...
- licensing/siting plans

Operational Scenarios

COTS Hardware

Selections, trades/rationale, interface and configuration data:

- bill of materials including quantity, model, part number, and version, as needed
- layout/floorplan (including demarcations, cable runs, connector needs)

Hybrid

Selections, trades/rationale, interface and design data for hybrid solutions:

- 4GL scripts; Unix shell scripts; display definitions and Motif templates; MIB tailoring data, including variable definitions
- ECS-unique configuration solutions for COTS software
- detailed schema for DBMSs
- network hardware address, security and other configuration table definitions

AM-1/L-7 Release Planning Status
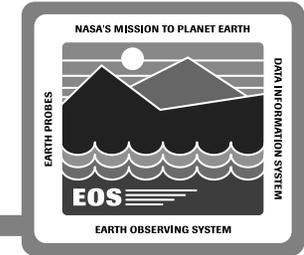
- **The AM-1/L-7 Release has been planned via a 500+ node Intermediate Logic Network**

- **The present ILN for this release forecasts comparatively little float**

- **ECS continues to refine the ILN, with the goal of achieving 60 days of float**

- **In refining the ILN, ECS is considering opportunities from:**
  - **process improvements**
  - **increased use of COTS**
  - **feature deferral**

Conclusion
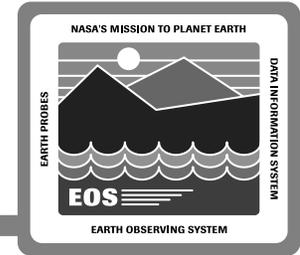
ECS progress since SDR - including segment PDR board approvals, expanded planning, and risk mitigations - has revalidated the feasibility and timeliness of the TRMM Release.

Through the success of PDR and the start-up of activities for the AM-1/L-7 Release, we have laid the groundwork for a similar post-SDR revalidation of the feasibility and timeliness of Release B.